

RAW SEQUENCE LISTING

3 <110> APPLICANT: SCHLESSINGER, JOSEPH

DATE: 04/15/2003

PATENT APPLICATION: US/09/887,669

TIME: 13:17:22

Input Set : A:\38621246.app

Output Set: N:\CRF4\04152003\I887669.raw

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SAP, JAN M.
     4
             ULLRICH, AXEL
     5
             VOGEL, WOLFGANG
     7
            FUCHS, MIRIAM
     9 <120> TITLE OF INVENTION: NOVEL RECEPTOR-TYPE PHOSPHOTYROSINE PHOSPHATASE-KAPPA
    11 <130> FILE REFERENCE: 038602/1246
    13 <140> CURRENT APPLICATION NUMBER: 09/887,669
C--> 14 <141> CURRENT FILING DATE: 2001-10-10
    16 <150> PRIOR APPLICATION NUMBER: 09/234,883
    17 <151> PRIOR FILING DATE: 1999-01-21
    19 <150> PRIOR APPLICATION NUMBER: 08/087,244
    20 <151> PRIOR FILING DATE: 1993-07-01
    22 <150> PRIOR APPLICATION NUMBER: 08/049,384
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    23 <151> PRIOR FILING DATE: 1993-04-21
    25 <160> NUMBER OF SEQ ID NOS: 13
    27 <170> SOFTWARE: PatentIn Ver. 2.1
    29 <210> SEQ ID NO: 1
    30 <211> LENGTH: 1457
    31 <212> TYPE: PRT
     32 <213> ORGANISM: Mus musculus
    34 <400> SEQUENCE: 1
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                   20
    41 Gly Gly Cys Thr Phe Asp Asp Gly Pro Gly Ala Cys Asp Tyr His Gln
     44 Asp Leu Tyr Asp Asp Phe Glu Trp Val His Val Ser Ala Gln Glu Pro
                                55
     47 His Tyr Leu Pro Pro Glu Met Pro Gln Gly Ser Tyr Met Val Val Asp
    50 Ser Ser Asn His Asp Pro Gly Glu Lys Ala Arg Leu Gln Leu Pro Thr
                                            90
                       85
     53 Met Lys Glu Asn Asp Thr His Cys Ile Asp Phe Ser Tyr Leu Leu Tyr
                                       105
                  100
    56 Ser Gln Lys Gly Leu Asn Pro Gly Thr Leu Asn Ile Leu Val Arg Val
                                   120
                                                       125
     57 115
     59 Asn Lys Gly Pro Leu Ala Asn Pro Ile Trp Asn Val Thr Gly Phe Thr
                              135
                                                  140
     62 Gly Arg Asp Trp Leu Arg Ala Glu Leu Ala Val Ser Thr Phe Trp Pro
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     65 Asn Glu Tyr Gln Val Ile Phe Glu Ala Glu Val Ser Gly Gly Arg Ser
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Input Set : A:\38621246.app

Output Set: N:\CRF4\04152003\1887669.raw

66				165					170					175	
68 Gly	Tur	Tle	Ala		Asp	Asp	Ile	Gln	Val	Leu	Ser	Tvr	Pro	Cvs	Asp
69	- 1 -		180			L		185					190	-	-
71 Lys	Ser	Pro		Phe	Leu	Arq	Leu	Gly	Asp	Val	Glu	Val	Asn	Ala	Gly
72	001	195				5	200					205			-
74 Gln	Asn		Thr	Phe	Gln	Cvs		Ala	Thr	Glv	Ara	Asp	Ala	Val	His
	210	1114	****		0211	215				1	220	1			
77 Asn		Len	Tro	Len	Gln		Ara	Asn	Glv	Glu	Asp	Ile	Pro	Val	Ala
78 225	цуS	пси	111	шса	230	9	9		0-1	235					240
80 Gln	Thr	I.vs	Asn	Tle		His	Ara	Ara	Phe		Ala	Ser	Phe	Ara	
81	1111	Lyo	11011	245			9	9	250					255	
83 Gln	Glu	Val	Thr		Thr	Asp	Gln	Asp		Tvr			Val		Gln
84	014	vul	260	Lyo			02	265		- 1 -	5	-1-	270		
86 Ser	Glu	Δrα		Ser	G1 v	Val	Ser		Phe	Ala	Gln	Leu		Val	Arg
87	Olu	275	Ory	DCL	O L y		280		11.0			285			5
89 Glu	Pro		Δra	Pro	Tle	Δla		Pro	Gln	Len	Leu		Val	Glv	Pro
90	290	110	rirg	110	110	295	110		01		300	1		1	
92 Thr		Len	Lan	Tla	Gln		Asn	Δla	Asn	Ser		Tle	Glv	Asp	Glv
93 305	ıyı	пеп	пец	110	310	псα	11011	7114	11011	315	110		0-1		320
95 Pro	Tla	T۱۵	T. - 11	T.vs		Val	Glu	Tur	Ara		Thr	Ser	Glv	Ser	
96	116	110	цси	325	OIU	val	014	- 1 -	330			-	1	335	1-
98 Thr	Glu	Thr	His		Val	Asn	Ala	Pro		Tvr	Lvs	Leu	Trp		Leu
99	Giu	1111	340	mu	VUL	11011	1114	345	****	-] -	2,0		350		
101 Asp	Pro	Δsr		Gli	י יי	Gli	. T1e		r Val	Lei	Let	Thr		r Pro	Glv
102	, , , ,	355		. 010	1-	. 010	360	_				365		,	-
104 Glu	ı Glv			Glv	, Lei	Pro			Pro	Lei	ı Ile	Thr	Arc	Th:	Lys
105	370	-				375					380			•	-
107 Cys			ı Pro	Met	Arc	Thr	Pro	o Lys	s Thi	: Lei	ı Lys	: Ile	Ala	a Glu	ı Ile
108 385					390			-		395					400
110 Glr		a Arc	Arc	ı Ile	e Ala	Val	7) CY	о П~r	o Glu		-		_	- 70	n Ile
111								シェエド		ı sei	. Let	ı Gly	/ Tyi	r Ası	
113 Thr				405			. ASI	, IT	410		. Let	ı Gly	/ Tyi	r Ası 41!	5
	Arc			405	5				410)				415	5
114	Arç			405 Thi	5				410 r Ile)				41! r Phe	5
114		g Cys	His 420	405 Thi	o Phe	e Asr	n Val	l Thi	410 r Ile 5) e Cys	Tyr	His	Ty:	41! r Phe O	a Arg
		g Cys	His 420 Glu	405 Thi	o Phe	e Asr	n Val	l Thi 425 o Cys	410 r Ile 5) e Cys	Tyr	His	430 Pro	41! r Phe O	a Arg
114 116 Gly 117	/ His	Cys Asr 435	His 420 Glu	405 Thi) Sei	o Phe Arg	e Asr J Ala	n Val a Asp 440	1 Thi 42! 5 Cys	410 r Ile 5 s Leu) e Cys ı Asp	Tyr Met	His Asp 445	Ty: 430 Pro	41! r Phe O Lys	a Arg
114 116 Gly	/ His	Cys S Asr 435 h His	His 420 Glu	405 Thi) Sei	o Phe Arg	e Asr J Ala	n Val Asp 440 Lei	1 Thi 42! 5 Cys	410 r Ile 5 s Leu) e Cys ı Asp	Tyr Met	His Asp 445 Asr	Ty: 430 Pro	41! r Phe O Lys	a Arg
114 116 Gly 117 119 Pro	7 His 5 Glr 450	Cys Asr 435 His	His 420 Glu Wal	405 Thi Sei Val	Phe Arg Asr	Asr Ala His 455	n Val Asp 440 S Lev	1 Thi 42! 5 Cys 0	410 r Ile 5 s Leu p Pro) e Cys ı Asr o Tyı	Tyr Met	His Asp 445 Asr	430 Pro Val	41! r Phe O Lys	e Arg Ala Leu
114 116 Gly 117 119 Pro	7 His O Glr 450 S Met	Cys Asr 435 His	His 420 Glu Wal	405 Thi Sei Val	Phe Arg Asr	AST Ala His 455 1 Pro	n Val Asp 440 S Lev	1 Thi 42! 5 Cys 0	410 r Ile 5 s Leu p Pro) e Cys ı Asr o Tyı	Tyr Met Thr 460 Glu	His Asp 445 Asr	430 Pro Val	41! r Phe O Lys	e Arg Ala Leu
114 116 Gly 117 119 Pro 120 122 Lys 123 465	His Glr 450 Met	G Cys Asr 435 His O	His 420 Glu Val	405 Thi) Sei Val	Phe Phe Arg Asr Asr 470	Asr Ala Ala His 455 Pro	n Val Asp 440 S Lev O Glv	l Thi 425 Cys Cys D Pro	410 F Ile 5 Leu D Pro) e Cys Asp Tyi Lys 475	Tyr Met Thr 460 Glu	Asp 445 Asr Asr	Tyr 430 Pro D Val	41! r Phe C Ly: Ly: G Sei	e Arg s Ala r Leu Thr 480
114 116 Gly 117 119 Pro 120 122 Lys	His Glr 450 Met	G Cys Asr 435 His O	His 420 Glu Val	405 Thi) Sei Val	Phe Arc Asr Asr 470	Asr Ala Ala His 455 Pro	n Val Asp 440 S Lev O Glv	l Thi 425 Cys Cys D Pro	410 F Ile 5 Leu D Pro) Asp Tyi Lys 475	Tyr Met Thr 460 Glu	Asp 445 Asr Asr	Tyr 430 Pro D Val	41! r Phe C Ly: Ly: G Sei	E Arg Ala Leu Thr 480 Ser
114 116 Gly 117 119 Pro 120 122 Lys 123 465 125 Ile	His Glr 450 Met	G Cys Asr 435 His	His 420 Glu Wal Val	405 Thi Sei Val Thi Asp 485	Phe Arg Asr Asr 470 Glu	Asr Ala Ala Ala Asr Asr	n Val Asp 440 Let O Glu	l Thi 42! p Cys) u Pro u Gly	410 r Ile 5 s Leu p Pro y Arg 490) e Cys I Asp Tyi Lys 475 Pro	Met Thr 460 Glub Val	Asp 445 Asr Asr Ser Pro	Tyr 430 Pro Val	41! r Phe c Phe c Lys c Lys l Sen l Lys 499	E Arg Ala Leu Thr 480 Ser
114 116 Gly 117 119 Pro 120 122 Lys 123 465 125 Ile 126 128 Leu 129	His Glr 450 Met	G Cys Asr 435 His Control Cont	s His 420 of Glubs Value Leu Thr 500	405 Thi Sei Val Thi Asi 485 Sei	Phe Arg Asr Asr 47(Glu Fhe	Asr Ala Ala Ass Asr Asr Barra Asr	Asp 440 S Lev O Glv O Vai	1 Thi 425 Cys 0 Pro u Gly 1 Pro n Lys 505	410 r Ile 5 Leu p Pro y Arg 490 s Ile 5) e Cys l Asp Tyl Lys 475 Pro Pho	Met Thi 460 Glu Val	Asp 445 Asr Asr Ser Pro	430 Pro No Pro No Val	41! r Phe C Lys l Sei l Glu 49! p Lys	E Arg Ala Leu Thr 480 Ser G Glu
114 116 Gly 117 119 Pro 120 122 Lys 123 465 125 Ile 126 128 Leu	His Glr 450 Met	G Cys Asr 435 His Control Cont	s His 420 of Glubs Value Leu Thr 500	405 Thi Sei Val Thi Asi 485 Sei	Phe Arg Asr Asr 47(Glu Fhe	Asr Ala Ala Ass Asr Asr Barra Asr Barra Asr	Asp 440 S Lev O Glv O Vai	1 Thi 425 Cys 0 Pro u Gly 1 Pro n Lys 505	410 r Ile 5 Leu p Pro y Arg 490 s Ile 5) e Cys l Asp Tyl Lys 475 Pro Pho	Met Thi 460 Glu Val	Asp 445 Asr Asr Ser Pro	430 Pro No Pro No Val	41! r Phe C Lys l Sei l Glu 49! p Lys	E Arg Ala Leu Thr 480 Ser G Glu
114 116 Gly 117 119 Pro 120 122 Lys 123 465 125 Ile 126 128 Leu 129 131 Pro	His Glr 450 Met Glr Glr Glr Let	G Cys Asr 435 His C Ile Glr Gly Gly 515	S His 420 1 Glubs Value Leu Thr 500 1 Pro	405 S Thi Sei Val Thi Asp 485 Sei O Asi	Arg Arg Asr Asr 470 Glu Fhe	Asr Ala Ala Ala Ala Asr Asr Be Glu	ASP 440 S Let 5 Glu D Val ASP 520	1 Thi 42! p Cys 0 u Pro u Gly 1 Pro n Lys 50! e Thi	410 r Ile 5 s Leu p Pro y Arg 490 s Ile 5 r Glr	Cys Asp Tyi Asp Asp Tyi A75 Pro Phe	Met Met Thr 460 Glu Val	Asp 445 Asr Asr Ser Pro Asr Val	S Tyr 430 Pro N Val Glu Val Trp 510 Se:	41! r Phe C Lys l Sei l Gli 49! p Lys c Ty:	Arg Arg Ala Leu Thr 480 Ser Glu r Ser
114 116 Gly 117 119 Pro 120 122 Lys 123 465 125 Ile 126 128 Leu 129 131 Pro	His Glr 450 Met Glr Glr Glr Let	G Cys Asr 435 His C Ile Glr Gly Gly 515	S His 420 1 Glubs Value Leu Thr 500 1 Pro	405 S Thi Sei Val Thi Asp 485 Sei O Asi	Arg Arg Asr Asr 470 Glu Fhe	Asr Ala Ala Ala Ala Asr Asr Be Glu	ASP 440 S Let 5 Glu D Val ASP 520	1 Thi 42! p Cys 0 u Pro u Gly 1 Pro n Lys 50! e Thi	410 r Ile 5 s Leu p Pro y Arg 490 s Ile 5 r Glr	Cys Asp Tyi Asp Asp Tyi A75 Pro Phe	Met Met Thr 460 Glu Val	Asp 445 Asr Asr Ser Pro Asr Val	S Tyr 430 Pro N Val Glu Val Trp 510 Se:	41! r Phe C Lys l Sei l Gli 49! p Lys c Ty:	Arg Arg Ala Leu Thr 480 Ser Glu r Ser
114 116 Gly 117 119 Pro 120 122 Lys 123 465 125 Ile 126 128 Leu 129 131 Pro 132 134 Ser 135	His Glr 450 Met 60 He Ile Glr Leu 530	Gly Gly Gly Arco	His 420 A 42	405 S Thi Sei Val Thi Asr 485 Sei Asr	Arc Arc Asr 470 Glu Fhe Gly Asr	Asr J Ala J Ala J Ala J Asr J Asr J Asr J Clu J	ASP 440 S Levi Co	l Thi 42! p Cys of Lys for Lys for Thi of Lys for T	410 r Ile 5 Let O Pro y Arg 490 s Ile 5 r Glr	De Cys Asp Dyg Lys 475 Pro Pho Tyu Dyg Val	Third Alace Let	Asp 445 Asr Asr Pro Asr Asr Val 525 Gly	Tyr 430 Pro Nai Vai Trr 510 Sec	41! r Phe D Lys l Sei l Gli l Lys 49! p Lys r Tys	Arg Arg Ala Leu Thr 480 Ser Glu R Ser
114 116 Gly 117 119 Pro 120 122 Lys 123 465 125 Ile 126 128 Leu 129 131 Pro 132 134 Ser	His Glr 450 Met 60 He Ile Glr Leu 530	Gly Gly Gly Arco	His 420 A 42	405 S Thi Sei Val Thi Asr 485 Sei Asr	Arc Arc Asr 470 Glu Fhe Gly Asr	Asr J Ala J Ala J Ala J Asr J Asr J Asr J Clu J	ASP 440 S Levi Co	l Thi 42! p Cys of Lys for Lys for Thi of Lys for T	410 r Ile 5 Let O Pro y Arg 490 s Ile 5 r Glr	De Cys Asp Dyg Lys 475 Pro Pho Tyu Dyg Val	Third Alace Let	Asp 445 Asr Asr Pro Asr Asr Val 525 Gly	Tyr 430 Pro Nai Vai Trr 510 Sec	41! r Phe D Lys l Sei l Gli l Lys 49! p Lys r Tys	Arg Arg Ala Leu Thr 480 Ser Glu R Ser
114 116 Gly 117 119 Pro 120 122 Lys 123 465 125 Ile 126 128 Leu 129 131 Pro 132 134 Ser 135	His O Glr 450 S Met O Let O Let C Ile 530	Gly Gly Gly Arco	His 420 A 42	405 S Thi Sei Val Thi Asr 485 Sei Asr	Arc Arc Asr 470 Glu Fhe Gly Asr	Asr Ala Ala Ala Ala Ala Ala Asr Asr Asr Asr Asr Asr Asr	ASP 440 S Levi Co	l Thi 42! p Cys of Lys for Lys for Thi of Lys for T	410 r Ile 5 Let O Pro y Arg 490 s Ile 5 r Glr	De Cys Asp Dyg Lys 475 Pro Pho Tyu Dyg Val	Met Thir 460 Glub Value Leu Glub Ala 540 Value V	Asp 445 Asr Asr Pro Asr Asr Val 525 Gly	Tyr 430 Pro Nai Vai Trr 510 Sec	41! r Phe D Lys l Sei l Gli l Lys 49! p Lys r Tys	Arg Arg Ala Leu Thr 480 Ser Glu R Ser

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141	6 1		6 3			m\	7.1 -	~1 -	7		mb as	mb w	7.00	Tlo		7.1.
	GTA	Pne	GTÄ		Ата	Thr	Ата	тте		var	IIII	IIIL	ASII	Ile	ser	Ата
144				580			_	_	585			_	_	590		
146	Pro	Ser	Leu	Pro	Asp	Tyr	Glu		Val	Asp	Ala	Ser		Asn	Glu	Thr
147			595					600					605			
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150		610					615					620				
	Pro		Ser	Ala	Tvr	Gln	Ile	Val	Val	Glu	Gln	Leu	His	Pro	His	Arq
	625				- 1 -	630					635					640
		Luc	Δra	Glu	Δla		Δla	Met	Glu	Cvs		Gln	Val	Pro	Val	Thr
156	TILL	цуз	Arg	Olu	645	OLY	mu	1100	O ₁ u	650	- y -	02.11	• • •		655	
	m	C1	70	7.1		C	C1	C1	71.7		Птт»	T	Dho	NΊο		Glu
	Tyr	GTU	ASI		ьeu	ser	GLY	сту		PIO	TAT	тут	FIIE	Ala	Ата	GIU
159		_	_	660	_	_	_		665	. .	_	D1	m1 .	670	C:1	7
161	Leu	Pro		GTA	Asn	Leu	Pro		Pro	Ala	Pro	Pne		Val	стА	Asp
162			675					680					685		_	_
164	Asn	Arg	Thr	Tyr	Lys	Gly	Phe	Trp	Asn	Pro	Pro	Leu	Ala	Pro	Arg	Lys
165		690					695					700				
167	Gly	Tyr	Asn	Ile	Tyr	Phe	Gln	Ala	Met	Ser	Ser	Val	Glu	Lys	Glu	Thr
168	705					710					715					720
170	Lys	Thr	Gln	Cys	Val	Arg	Ile	Ala	Thr	Lys	Ala	Ala	Ala	Thr	Glu	Glu
171	-			-	725	_				730					735	
	Pro	Glu	Val	Ile	Pro	Asp	Pro	Ala	Lvs	Gln	Thr	Asp	Arq	Val	Val	Lys
174				740		-			745			-	_	750		_
	Tle	Ala	Glv	Tle	Ser	Ala	Glv	Tle	Leu	Val	Phe	Ile	Leu	Leu	Leu	Leu
177	110	1124	755	110	202		0_1	760					765			
	U = 1	U = 1		Val	Tle	Val	Lvs		Ser	Lvs	Len	Ala		Lys	Ara	Lvs
180	vaı	770	TTC	Val	110	Val	775	шуз	DCI	шуо	Dea	780	2,5		9	_, _
	7 ~~		Mot	C1	7 cn	Th∽	–	Cln	Glu	Mot	Thr		Mot	Val	Aen	Δla
	_	нта	Met	СТУ	ASII	790	Arg	GIII	GIU	Mec	795	1113	1100	var	11011	800
	785	_	20		m		70	C1-	C	mb		II i o	71.	C1	7 an	
	Met	Asp	Arg	Ser		Ата	Asp	GIN	ser		Leu	птѕ	Ald	Glu		PIO
186	_	_	_		805		_	~ 1		810	D1	0	D	7	815	Dana
	Leu	Ser	Leu		Phe	Met	Asp	GIn		Asn	Pne	ser	Pro	Arg	Leu	Pro
189				820				_	825	_	_		_	830	_	
	Asn	Asp		Leu	Val	Pro	Thr		Val	Leu	Asp	Glu		His	Ser	Ala
192			835					840					845		_	
194	Thr	Ala	Glu	Ser	Ser	Arg	Leu	Leu	Asp	Val	Pro		Tyr	Leu	Cys	GLu
195		850					855					860				
197	Gly	Thr	Glu	Ser	Pro	Tyr	Gln	Thr	Gly	Gln	Leu	His	Pro	Ala	Ile	Arg
198	865					870					875					880
200	Val.	Ala	Asp	Leu	Leu	Gln	His	Ile	Asn	Leu	Met	Lys	Thr	Ser	Asp	Ser
201			-		885					890					895	
	Tvr	Glv	Phe	Lvs	Glu	Glu	Tvr	Glu	Ser	Phe	Phe	Glu	Gly	Gln	Ser	Ala
204	-] -	0		900			- 1 -		905				_	910		
	Ser	ሞሥጥ	Den		د ۱ ۵	T.ve	T.ve	Asn		Asn	Ara	Ala	Lvs	Asn	Ara	Tvr
	Ser	тър	915	vaı	та	цуз	ьys	920	0111	11011	9		925	11011	9	- 1 -
207	C1	7. ~ ~		T1~	717-	т	7 ~~		C~~	71 ~~~	Un I	т1.		Gln	Pro	Val
	стА		тте	тте	HIG	тÀц		птѕ	Ser	Arg	vaı		ьeu	Gln	LIO	val
210	C 1	930	70	D	C	C	935	m	т1 -	7 ~~	71	940	Ψ••∽	T1.	7.00	т1.
212	GLu	Asp	Asp	rro	ser	ser	Asp	ıyr	тте	ASI	HTG	ASN	тÀц	Ile	АБР	TTG

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213	945				950					955					960
	Trp Leu	Tur	Δra	Asn		ጥህዮ	Gln	Ara	Pro		His	Tur	Tle	Δla	
216	пр вси	ı yı	711 g	965	OLY	1 7 1	0111		970	501	5	- y -	110	975	1111
	Gln Gly	Pro	Val		Glu	Thr	Val			Phe	Trn	Ara	Met		Trn
219	GIN GLY	110	980	1113	OLU	1111	Val	985	<i>1</i> 13P	1110	115	111.9	990	VUI	115
	Gln Glu	Gln		ЛΊэ	Cuc	Tla	U a l		U = 1	Thr	Aen	Len		Glu	Val
222	GIN GIU	995	Ser	мта	Cys		1000	rie c	vaı	1111		1005	Vai	Giu	Vai
	Gly Arg		T	Cvic	Ф			Ψ×n	Dro	7.00			C1,,	17-1	Tur
		vaı	гуу	Cys			ıyr	пр	PIO			THE	GIU	val	ıyı
225		Dho	τ	17-1		1015	17-1	C1	Mo+		1020	T 011	7.1.	C1.1	Ф
	Gly Asp 1025	Pne	ьуѕ		1030		Val	GIU		1035		ьeu	нта		191 1040
		7 ~~~	ωρ ~				C1	7. ~~ ~				7.00	C1,,		
	Val Val	Arg			Inr	ьeu	GIU	_	_	GTÀ	ıyı	ASII		116	Arg
231	Cl W-1	T		1045	114 -	DL -	mh		1050	D	71	11: ~	_		D===
	Glu Val	_		Pne	HIS	Pne		_	rrp	Pro	ASP			vaı	PIO
234			1060	01	Ŧ	т		1065	T1 -	70	70		1070	T	0
	Tyr His		Thr	GTA	ьeu			Phe	тте	Arg			ьys	Leu	Ser
		1075	_		~ 1		1080					1085	7.7	01	7 . 1 .
	Asn Pro	Pro	Ser	Ala	_		TTE	val	vaı		_	Ser	Ата	GTA	Ата
240			~ 1	~		1095		~ 1	_		1100	.	7	N - 1-	7 . 7
	Gly Arg	Thr	GLY				vaı	тте			мет	ьeu	Asp		
	1105	6 3	0.1		1110					1115	** - 3	.	7.1.		120
	Glu Arg	Glu	_		vaı	Asp	тте	-		Cys	vaı	ьуs			Arg
246		_		1125		1	01		1130	G 3	~ 1	m		1135	- 1 -
	Ser Arg			Asn	мет	vaı			GIU	GIU	GIN			Pne	ire
249	***		1140	T	01	70.7 -		L145	G	C1	C1		1150	T1.	D
	His Asp		тте	Leu	GIU			Leu	Cys	СТА			Ата	тте	Pro
252		1155	D1	T	70.7 -		1160	D1	70	M 1-		1165	т1.	7	C
	Val Cys	GIU	Pne	гуѕ			Tyr	Pne	Asp			Arg	ше	Asp	ser
255		70	.	0		1175	T	7	C1		1180	mb	т	7	C
	Gln Thr	ASN	ser			ьeu	ьуѕ	Asp			GIII	IIII	ьеи		200
	1185	D	7		1190	70.1	C1	7		1195	Tla	71.	C++0		
	Val Thr	Pro	_	1205	GIII	Ата	GIU	-	L210	ser	116	АТА		1215	PIO
261	Arg Asn	uia			7 00	7/ ~~~	Dho			Ma+	T 011	Dro			7. ~~
264	Arg Asii		1220	гуэ	ASII	Arg		1225	Asp	met	ьеи		1230	АЗР	Arg
	Cys Leu			Lou	Tlo	Thr			C1 17	Clu	Sor			ጥኒኒዮ	Tlo
267	-	1235	rne	ьeu	116		1240	Asp	GTÀ	GIU		1245	ASII	ı yı	116
	Asn Ala		T 011	Mot	7 cn			7 ~~	Cln	Dro			Dho	Tlo	Wal
270	1250	нта	neu	Met		1255	тут	Arg	GIII		1260	АІа	rne	116	val
	Thr Gln	m	Dro	Tou			Ψh.×	17-1	Tuc			Trn	Λrσ	Lou	U a l
	1265	тАт	PLO		1270	ASII	TIIL	vaı		1275	rne	тъ	Arg		1280
		Ф	C1			802	т1.	W-1			7.00	Clu	U a l		
276	Tyr Asp	т Ат	_	L285	TIIT	SGT	тте		1290	neu	UOII	GIU		1295	ı.∈u
	Com Clm	C1			Cln	Ф	T×ν			Clu	C1,,	Mot			Тих
	Ser Gln	_		110	GTII	TÀT	_		GIU	GIU	GTÀ		1310	ALY	тАт
279	Cl., Dwa		C12	\1	C1	Cvic		1305	Cvic	S~~	Mo+			7000	U a l
	Gly Pro		GTII	val	GIU			ser.	Cys	ser		ASP 1325	CAR	wah	val
282		1315	т1-	Dha	7\ ~~ ~		1320	7.00	T 0	ሞ⊳∽			C15	C1.,	C1
	Ile Asn	Arg	тте	rne			Cys	ASII	теп			LIO	GTII	GIU	атА
285	1330					1335					1340				

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Output Set: N:\CRF4\04152003\1887669.raw

287 Tyr Leu Met Val Gln Gln Phe Gln Tyr Leu Gly Trp Ala Ser His Arg 1350 1355 290 Glu Val Pro Gly Ser Lys Arg Ser Phe Leu Lys Leu Ile Leu Gln Val 1370 1365 293 Glu Lys Trp Gln Glu Glu Cys Glu Glu Gly Glu Gly Arg Thr Ile Ile 294 1380 1385 296 His Cys Leu Asn Gly Gly Gly Arg Ser Gly Met Phe Cys Ala Ile Gly 297 1395 1405 1400 299 Ile Val Val Glu Met Val Lys Arg Gln Asn Val Val Asp Val Phe His 1415 302 Ala Val Lys Thr Leu Arg Asn Ser Lys Pro Asn Met Val Glu Ala Pro 1430 1435 305 Glu Gln Tyr Arg Phe Cys Tyr Asp Val Ala Leu Glu Tyr Leu Glu Ser 306 1445 1450 308 Ser 311 <210> SEQ ID NO: 2 312 <211> LENGTH: 1439 313 <212> TYPE: PRT 314 <213> ORGANISM: Homo sapiens 316 <400> SEQUENCE: 2 317 Met Asp Thr Thr Ala Ala Ala Leu Pro Ala Phe Val Ala Leu Leu 5 1.0 320 Leu Leu Ser Pro Trp Pro Leu Leu Gly Ser Ala Gln Gly Gln Phe Ser 25 323 Ala Gly Gly Cys Thr Phe Asp Asp Gly Pro Gly Ala Cys Asp Tyr His 40 35 326 Gln Asp Leu Tyr Asp Asp Phe Glu Trp Val His Val Ser Ala Gln Glu 5.5 329 Pro His Tyr Leu Pro Pro Glu Met Pro Gln Gly Ser Tyr Met Ile Val 70 75 332 Asp Ser Ser Asp His Asp Pro Gly Glu Lys Ala Arg Leu Gln Leu Pro 335 Thr Met Lys Glu Asn Asp Thr His Cys Ile Asp Phe Ser Tyr Leu Leu 100 105 338 Tyr Ser Gln Lys Gly Leu Asn Pro Gly Thr Leu Asn Ile Leu Val Arg 115 120 341 Val Asn Lys Gly Pro Leu Ala Asn Pro Ile Trp Asn Val Thr Gly Phe 135 130 344 Thr Gly Arg Asp Trp Leu Arg Ala Glu Leu Ala Val Ser Thr Phe Trp 150 155 347 Pro Asn Glu Tyr Gln Val Ile Phe Glu Ala Glu Val Ser Gly Gly Arg 170 175 350 Ser Gly Tyr Ile Ala Ile Asp Asp Ile Gln Val Leu Ser Tyr Pro Cys 185 190 180 353 Asp Lys Ser Pro His Phe Leu Arg Leu Gly Asp Val Glu Val Asn Ala 200 205 356 Gly Gln Asn Ala Thr Phe Gln Cys Ile Ala Thr Gly Arg Asp Ala Val 357 210 215 359 His Asn Lys Leu Trp Leu Gln Arg Arg Asn Gly Glu Asp Ile Pro Val VERIFICATION SUMMARY

DATE: 04/15/2003

PATENT APPLICATION: US/09/887,669

TIME: 13:17:23

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L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date